

Ergonomics demonstration project: Sheet metal, plumbing and pipefitting work

Need

Workers at the McKinstry Company perform plumbing, pipefitting and sheet metal work, which is one of the top 12 industries for musculoskeletal disorders in Washington State. McKinstry is a proactive company that has been recognized by peers as providing a healthy work environment for its workers. The good practices already implemented at this company may be documented and disseminated to other companies in the state performing similar work.

Goals

The goals of the demonstration project are to:

- Perform an evaluation of all headquarters and shop jobs for the presence of caution zone and hazard zone risk factors, with identification of mitigating solutions for any identified hazard zone risk factors.
- Demonstrate employer evaluation of caution zone risk factors.
- Identify best practices for dissemination to companies with similar operations.

Project design

The McKinstry Safety Director and an ergonomist from Labor and Industries performed a joint walk-through analysis of all jobs. A checklist was completed for each job summarizing the presence or absence of caution zone risk factors. Labor and Industries ergonomists performed brief on-site work sampling analyses for jobs where caution zone risk factors were found, to determine whether hazard zone levels were exceeded.

Six meetings and walk-through analyses were performed between November 2000 and February 2001. Each discussion and walk-through lasted approximately two hours, and resulted in analysis of all caution zone and hazard zone risk factors, and recommendations for improvement. Existing practices were documented which already mitigated risk factors in potentially hazardous areas.

Timetable

November 2000Begin initial discussions and initiate evaluations

February 2001Complete final report and documentation

Results

- The employer evaluated jobs for caution zone risk factors with little difficulty.
- Three hazard zone risk factors were observed. Two were corrected with low-cost office accessories and one was corrected by administrative control.
- Best practices already in place were documented. These eliminated potential lifting; bending and high hand force hazard zone risk factors.
- A report identifying caution zone risk factors mitigated hazard zone risk factors and best practices for similar operations.
- A written ergonomics program and a company-specific caution zone checklist were also developed.